REMARKS

Upon careful and complete consideration of the Office Action dated August 18, 2008, applicant has amended the claims which, when considered in conjunction with the comments herein below, are deemed to place the present application into condition for allowance. Favorable reconsideration of this application, as amended, is respectfully solicited.

Applicant has amended the claims by directing the subject invention directly to a radiation protection apron of lead substitute material for radiation protection purposes wherein the presence of all three identified metals or metal compounds are mandatory. Previously, the claimed invention was directed simply to a lead substitute material for radiation protection and indicated that not more than one of the metal constituents is 0 wt. %. As amended, some weight percentage of each metal or metal compound is now required.

The Office Action has rejected claims 1, 5-7, 11-13 and 16-22 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,548,570 to Lange (hereinafter referred to as "Lange") in view of U.S. Patent No. 4,795,654 to Teleki (Hereinafter referred to as "Teleki"); claims 1-4 under 35 U.S.C. §103(a) as being unpatentable over U.S. Publication No. 2004/0262546 to Thiess et al. (hereinafter referred to as "Thiess et al.") in view of Teleki; andclaims 8-10 under 35 U.S.C. §103(a) as being unpatentable over Lange in view of Teleki as applied to to the rejection of claim 1, and further in view of U.S. Patent No. 3,883,749 to Whittaker et al. (hereinafter referred to as "Whittaker et al.").

In discussing the previous response submitted by the applicant, the Examiner noted the following: "With regards to the limitations concerning particular elements being in a layer closer to a body being protected than other elements ... the claims are to compositions

and not to methods of using the compositions. As such, in the compositions rendered obvious, any particular layer is capable of being placed closer or further from a body to be protected."

It is respectfully submitted that by way of the amendments made in the present response, i.e. the claimed invention is now directed to a radiation protection apron of lead material, the arrangement of the defined at least two layers of different compositions relative to the body of the apron's wearer is unambiguously clear, and the previously submitted arguments can no longer be overlooked by the Examiner. That is, with respect to the claimed apron, any particular layer is no longer capable of being placed closer or further from a body to be protected by said apron. The specific arrangement of the layers in said apron is crucial. That is, it is clear that the body being protected is the body of the wearer of the apron.

Consequently, as now claimed, the present invention is directed to a radiation protection apron of lead substitute material comprising an X-ray shielding material that is arranged between the source of the radiation and the body of the person to be protected (i.e. the wearer of said protective apron). The Examiner's attention is once again directed to page 1, line 20 and page 15, lines 1-15, of the subject specification. Based on the subject disclosure, as well as the art cited by the Examiner, and the newly filed amendment directing the claim to the actual radiation protection apron, it is respectfully submitted that the skilled person reading the subject disclosure would have no ambiguity with regard to the arrangement of the protective layers that are referred to as being either remote or close to the body.

As previously argued, even if the skilled person were to look to Teleki for purposes of finding a lead substitute material, it is respectfully submitted that the laminated construction disclosed in Teleki is based on a completely different physical principle when

compared to the present invention and would lead the skilled artisan to a construction very different from that of the present invention. More particularly, in accordance with the teachings of Teleki, the layer that is first hit by the X-ray radiation comprises elements with a particularly high atomic number (uranium to tantalum, i.e. atomic number = 92 to 73), while the second layer comprises elements having a lower atomic number (tin to niobium, i.e. atomic number = 50 to 41) and the third layer comprises elements having an even lower atomic number (zinc to titanium, i.e. atomic number = 30 to 22). This teaching of Teleki is in direct contrast to the present invention. Specifically, in accordance with the present invention, the layer of the apron that is first hit by the X-ray radiation, i.e. the protective layer more remote from the body (of the wearer of the respective apron (see the discussion below)), comprises elements having a lower atomic number and the second protective layer, which is closer to the body of the apron wearer, comprises the elements having a higher atomic number. This is the complete reverse of the construction of the layers as taught by Teleki. Accordingly, the skilled person reading Teleki could not possibly derive the layer construction as claimed by the present invention as Teleki teaches away from the present invention.

As referenced above, it must be understood that the body being protected by the radiation protection apron of lead substitute material of the present invention would be the body that is using the protective apron from the X-ray radiation, i.e. the wearer of the protective apron comprising the lead substitute material. The Office Action in rejecting claim 15 noted that "[w]hile the references Lange and Teleki do not instruct a use of the layers relative to a body, at some point the layer with higher atomic weight material for example U, will be closer than the other layer to the body of either the wearer of the material, or a person

near the wearer of the material." It is respectfully submitted that this is not a reasonable interpretation of the invention, especially now in light of the claim as amended. The person near the wearer of the material, for example, the X-ray technician, would not rely on X-ray protection from the apron being worn by the person being x-rayed. If they desired protection, they would either wear another apron themselves or rely on some other type of protection.

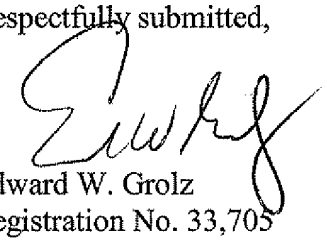
The skilled artisan must now realize from the claimed invention and present disclosure (as well as from the disclosure of Teleki) that the invention is directed to an X-ray shielding apron that is comprised of material arranged between the source of the radiation and the object or body being protected. It seems incomprehensible that the skilled artisan would interpret the material as being protective to a person near the wearer of the material. No ambiguity should exist.

With respect to the amendment of the main claim limiting the composition to a lead substitute material material comprising Sn, W and Bi (or their compounds), the presence of all three metals distinguish the claimed invention even further from that disclosed by Lange, as well as Teleki.

Finally, it is noted that a set of method claims has also been added by way of amendment and are distinguishable over the cited art for the same reasons set forth above. Accordingly, it is respectfully submitted that the rejection of the claims be withdrawn.

Based on the amendments and the remarks submitted above, it is respectfully submitted that all of the claims in the application contain patentable subject matter and a Notice of allowance is respectfully solicited.

Respectfully submitted,



Edward W. Grolz
Registration No. 33,705

Scully, Scott, Murphy & Presser
400 Garden City Plaza- Suite 300
Garden City, New York 11530
(516) 742-4343
EWG:eh